Applicant's response of April 20, 2009 electing Group I, apparatus claims 1-9, without traverse, is acknowledged. Applicant has added new claims 15-22 and those are treated here. Claims 10-14 are withdrawn as directed to a non-elected invention. The restriction requirement is deemed proper and made final.

Applicant is requested to file an updated IDS. Omitted from the original filing is any of the prior art cited in the prosecution of EP 1113231 (the European equivalent of the present application). Likewise, USP 6,298,677, cited by the examiner in this office action is a particularly relevant reference (to the double patenting rejection formulated below) and should have been brought to the attention of the PTO. The examiner makes no representation that this is the only relevant prior art that is known to applicant/assignee/counsel. Please make an independent inquiry.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 5 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 was probably intended to depend from claim 2 since many of the terms that currently have no antecedent basis are found there. The last paragraph of claim 5 repeats the same limitation twice in a confusing manner. See claim 19 for a proper

rewrite. The penultimate line in claim 7 (specifically the word "if") has some sort of diction problem that makes the claim ambiguous. Please proofread the claims carefully for these types of errors. They appear to be randomly scattered through the claims.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-9 and 15-22 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent No. 6,298,677 in view of Newton (USP 3,384,155).

The claims in the '677 patent are extremely similar to these. The only difference is that a (reversible, using reversing valve 46) heat pump is claimed in the '677 patent

and is used to obtain the hot and cold water circulated through the pipes to the room heat exchangers (14, 16 and 18). Applicant, in the present application, appears to claim separate heating and cooling sources in claim 1 and appears to more definitely claim separate heating and cooling sources in claim 15.

To have substituted the separate heating and cooling sources of Newton (i.e. the separate heating and cooling sources at the bottom of Figure 1 in Newton connected to supply pipe 10a and return pipe 10b) in place of the reversible heat pump (10, as shown in the '677 patent) as claimed in the '677 patent claims would have been obvious to one of ordinary skill in the art when the building already had separate heating and cooling sources and a retrofit with the controller of the claims of the '677 patent was desired. Such a modification would advantageously save the costs of installing a new heating and cooling plant.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4, 7, 9, 15, 17, 18, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newton (USP 3,384,155) in view of Riley (USP 5,303,767) and/or Clark (USP 4,890,666).

Newton discloses all of the claimed subject matter except the voting scheme applicant uses to switch back and forth (i.e. changeover) between the heating and cooling modes. Instead of voting a timer 19 is used as disclosed in column 5, lines 29-41 of Newton. To have instead controlled the changeover responsive to a thermostat voting scheme of the type taught by Riley and/or Clark would have been obvious to one of ordinary skill in the art to advantageously satisfy the maximum number conditioning requests at any given time.

Riley, in column 4, lines 9-12, explicitly teaches an art recognized equivalence between vent dampers (as disclosed by Clark) and electric valves for hydronic systems as disclosed by Newton, making the applicability of Clark's control scheme for vent dampers equally applicable to the electric valves for hydronic systems as disclosed by Newton (at 36, 38). Regarding the various claimed time delays, they are deemed inherent in Newton and Riley (and Clark). For example, small delays are caused by the time it takes for valves to changeover etc. More to the point, Clark (assigned to Carrier) teaches explicit time delays between changeovers. Regarding the dead-band claimed where the thermostats neither call for heat or cool, it is submitted that this is again inherent in the references to Newton and Riley (otherwise these systems would cycle endlessly between heating and cooling) and explicit in Clark. Also see, and forming no part of this rejection except to demonstrate common knowledge in the art automatic control art, Imaoka, column 1, lines 13-21.

Allowable subject matter:

Assuming that applicant will overcome the double patenting rejection, claims 2, 3 (assuming its dependency will be changed to claim 2), 5 (assuming 35 USC 112, problem addressed), 6, 8, 16, 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John K. Ford whose telephone number is 571-272-4911. The examiner can normally be reached on Mon.-Fri. 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John K. Ford/
Primary Examiner, Art Unit 3744